

Welcome Rain: More Relief, Another Round Coming

Another ½ to 1 inch through February 9th Brings 4 Inches to Some

Drought levels likely to improve to “Severe” in Lower Valley Week of Feb. 12

The Relief Continues...

As forecast, a series of upper level disturbances returned high levels of atmospheric moisture to the Lower and Mid Rio Grande Valley beginning Tuesday evening February 7th and continuing through most of Wednesday, February 8th. Another band of showers moved quickly across the Valley on the 9th. Significant rain on the order of 1 to 2 inches fell on the 7th and 8th in areas which had received generally ½ to 2 inches on [February 4th and 5th](#), bringing event totals over 2 ½ inches across much of Cameron and Willacy County, with more than 3 inches in and near Harlingen. Steady rains across the mid Valley brought southern Hidalgo close to or above 2 inches.

The most recent round, on February 9th, dropped up to ½ inch in a few hours during the morning and early afternoon. Overall, the most populated and agriculturally sensitive region along Federal Highway 83 from Hidalgo through Cameron County, and along Highway 77 throughout the Lower Texas coast, received well over 3 inches – and counting.

Quick Stats: Just how wet has it been, compared with long term averages? Based on long term climate records:

- Brownsville was on its way to **tripling the monthly** average (1.22” since 1878) with 3.26” – and counting.
- Harlingen/Cooperative was also nearing **triple the monthly** average (1.43” since 1911) with 3.44” – and counting.
- McAllen/Miller had doubled its long term **monthly** average (1.05” since 1961) with 2.20” – and counting.

Frequent rain combined with virtually no sunshine, cooler than average temperatures, and high humidity to reduce evaporation rates to near zero since Saturday evening February 4th. This has left areas of high standing water in fields, something that hasn’t been seen across the Lower and Mid Valley to this extent since September, 2010! Rains in late June, 2011, were helpful but evaporated relatively quickly between events, courtesy of 90°F temperatures and peak sun

angle around the time of the summer solstice. As one of our staff who owns ranchland put it, "this is a million-dollar rain for farmers" – assuming things can dry out later in the month to begin planting. How the situation evolves beyond the early spring planting season will be crucial to the outcome of the 2012 harvest. A rapid return to warm/hot, dry weather by April and May could impact growth, and another dry, hot summer could still decimate dryland crop production.

Total preliminary event amounts since February 4th (a shade less than monthly totals shown on the map) follows.

OBSERVATION TYPE: - COCORAHS

CITY/TOWN	COUNTY	EVENT TOTAL (4 TH -9 TH)
HARLINGEN 2.6 ESE	CAMERON	4.17
PALM VALLEY 2.2 SSW	CAMERON	3.95
SAN BENITO 5.0 SSE	CAMERON	3.70
RANCHO VIEJO 0.7E	CAMERON	3.62
BROWNSVILLE 4.2 NE	CAMERON	3.52
BROWNSVILLE 1.9ESE	CAMERON	3.50
BROWNSVILLE 5.0 NW	CAMERON	3.45
BROWNSVILLE 4.4NE	CAMERON	3.42
LOS FRESNOS 0.3NE	CAMERON	3.40
BROWNSVILLE 3.5 N	CAMERON	3.30
HARLINGEN 4.3 WSW	CAMERON	3.30
BROWNSVILLE 2.2W	CAMERON	3.23
RIO HONDO 9.4 NE	CAMERON	3.15
HARLINGEN 4.7WSW	CAMERON	3.15
BROWNSVILLE 1.3WNW	CAMERON	3.09
BROWNSVILLE 0.1SSE	CAMERON	3.07
LA JOYA 11.1 N	HIDALGO	3.06
RAYMONDVILLE 5.8E	WILLACY	3.02
RANCHO VIEJO 3.0 SE	CAMERON	2.90
BROWNSVILLE 6.4SE	CAMERON	2.88
ALAMO 1.5 NNE	HIDALGO	2.76
BROWNSVILLE 4.1E	CAMERON	2.67
PHARR 5.1 N	HIDALGO	2.65
LOS FRESNOS 0.8 SSE	CAMERON	2.51*
EDINBURG 1.1 WSW	HIDALGO	2.12
MISSION 1.9 ENE	HIDALGO	2.09
MCALLEN 2.4 NE	HIDALGO	2.01
FALFURRIAS 8.9 SSW	BROOKS	1.99
MISSION 3.8 SW	HIDALGO	1.75
FALFURRIAS 0.5 WNW	BROOKS	1.60

OBSERVATION TYPE: - ASOS/AWOS

AIRPORTS	COUNTY	EVENT TOTAL (4 TH -9 TH)
BROWNSVILLE/SPI (NWS)	CAMERON	3.26
HARLINGEN (VALLEY INTL)	CAMERON	2.80*
BAYVIEW/PORT ISABEL	CAMERON	2.52
WESLACO/MID VALLEY	HIDALGO	2.44
MCALLEN MILLER INTL	HIDALGO	2.22
EDINBURG INTL	HIDALGO	1.50*
FALFURRIAS/BROOKS CTY	BROOKS	1.29
HEBBRONVILLE/JIM HOGG	JIM HOGG	0.62

ZAPATA	ZAPATA	0.26
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OBSERVATION TYPE: - COOP

CITY/TOWN	COUNTY	EVENT TOTAL (4 TH -9 TH)
MCCOOK	HIDALGO	3.59
HARLINGEN	CAMERON	3.36
RAYMONDVILLE	WILLACY	3.00
ARMSTRONG	KENEDY	2.82
PORT MANSFIELD	WILLACY	2.78
PORT ISABEL	CAMERON	2.45*
SOUTH PADRE ISLAND	CAMERON	2.44
LA JOYA	HIDALGO	2.35
MERCEDES 6 SSE	HIDALGO	2.15
MCALLEN	HIDALGO	1.96
SANTA ROSA	CAMERON	1.87
SARITA 7 E	KENEDY	1.86
FALCON DAM	STARR	1.80
RIO GRANDE CITY	STARR	1.47
SAN MANUEL	HIDALGO	1.34
HEBBRONVILLE	JIM HOGG	0.79
ESCOBAS	ZAPATA	0.82

OBSERVATION TYPE: - RAWs/MESOWEST

CITY/TOWN	COUNTY	EVENT TOTAL (4 TH -9 TH)
SANTA ANA	HIDALGO	3.79**
LAGUNA ATASCOSA	CAMERON	2.87
FALCON LAKE	STARR	2.00
LINN-SAN MANUEL	HIDALGO	1.64

OBSERVATION TYPE - PUBLIC REPORTS

CITY/TOWN	COUNTY	EVENT TOTAL (4 TH - 9 TH)
LOS FRESNOS 4 W	CAMERON	3.79
SHARYLAND	HIDALGO	2.94*

*RAINFALL UNDERESTIMATED OR IMCOMPLETE.

**RAINFALL MAY BE OVERESTIMATED.

OBSERVATION TYPE LEGEND:

ASOS - AUTOMATED SURFACE OBSERVING SYSTEM (NWS/DOD)

AWOS - AUTOMATED WEATHER OBSERVING SYSTEM (FAA/OTHERS)

COOP - COOPERATIVE OBSERVER (NWS)

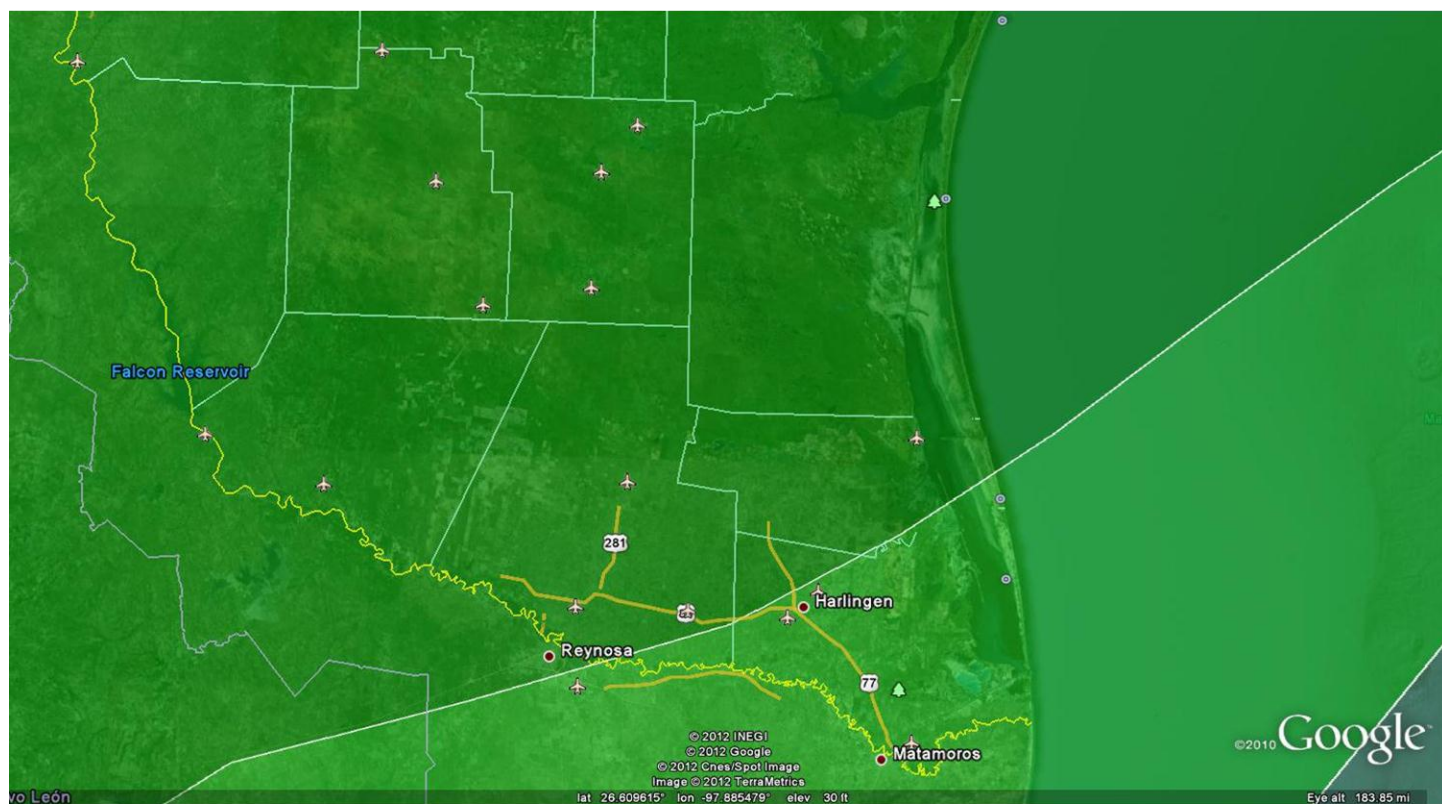
RAWs - REMOTE AUTOMATED WEATHER SYSTEM

COCORAHs - COMMUNITY COLLABORATIVE RAIN HAIL AND SNOW NETWORK

What's Next?

A little more rain will fall later this weekend. A final impulse of energy will eject from the persistent northern Mexico trough (second image, below) on February 12th (Sunday) and develop a weak surface low/coastal trough along the Lower Texas coast. Up to another ½ inch is possible, with higher amounts not out of the question along the coastal trough should one develop, and across the upper Valley and Rio Grande Plains, where the Extreme Drought still holds forth after less than one inch of rain thus far. After this final wave passes, conditions dry out, the sunshine returns along with south to southeast winds, and temperatures warm into the 70s and 80s by Tuesday. The warm and relatively humid air should allow plants and grasses to get a jump on early spring green-up before another front, and potentially more rains, may return by the third weekend of February.

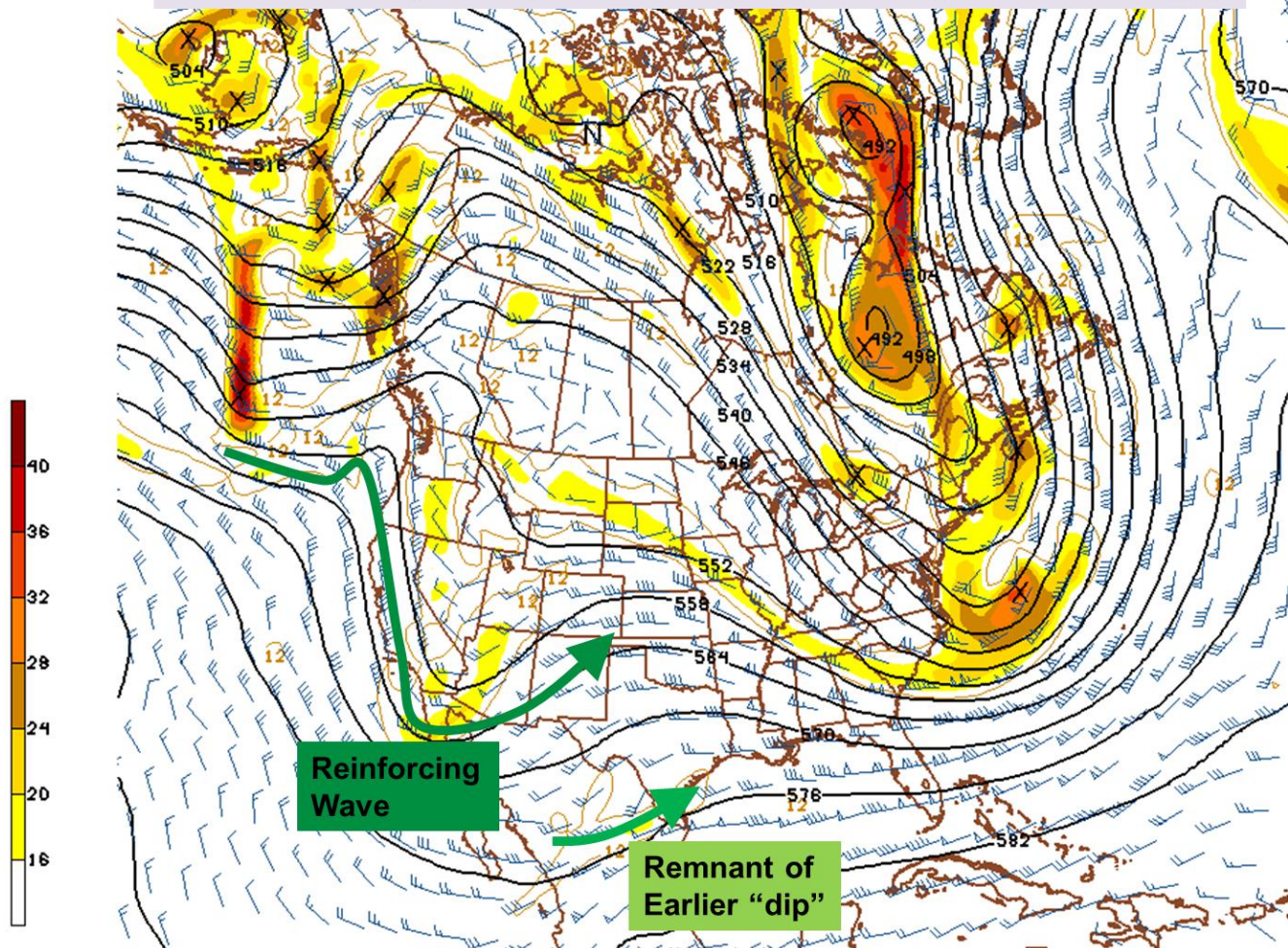
Rainfall Forecast February 11-14, 2011



0.10
to 0.25 inch

0.25
to 0.50 inch

February 12, 2012 (SundayMorning)



Pattern at around 18,000 feet above the surface Sunday morning, February 12th. The last of the waves will weaken as it ejects from northern Mexico (light green arrow), while a secondary wave moves steadily from southern California and helps 'energize' the remnant wave during the day Sunday. How much energy is imparted to the first wave will determine how much rain falls. For now, up to ½ inch is predicted, but totals could exceed an inch in places with a stronger system and additional lifting of warmer, moist air just above the earth's surface.